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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,218

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Noboru Hamada

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EXAMINER

ZELASKIEWICZ, CHRYSTINA E

ART UNIT

PAPER NUMBER

3621

MAIL DATE

DELIVERY MODE

08/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,218	Applicant(s) HAMADA, NOBORU	
	Examiner CHRYSTINA ZELASKIEWICZ	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>June 25, 2008, July 17, 2007, April 30, 2007,</u> | 6) <input type="checkbox"/> Other: _____ |
| <u>September 11, 2006</u> | |

DETAILED ACTION

Acknowledgements

1. This action is in reply to the application filed on June 8, 2006.
2. Claims 1-18 are currently pending and have been examined.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The Information Disclosure Statements filed on June 25, 2008, July 17, 2007, April 30, 2007, and September 11, 2006 have been considered. An initialed copy of the Form 1449 is enclosed herewith.

Drawings

5. The drawings are objected to as failing to comply with 37 C.F.R. §1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: patent document 1 (p 4 of specification).
6. Corrected drawing sheets in compliance with 37 C.F.R. §1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 C.F.R. §1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chan et al. (US 6,378,070) in view of Ishiguro et al. (US 6,360,320).

Claims 1, 5, 9, 11, 13, 15-18

9. Chan discloses the following limitations:

- a. said information processing apparatus comprises:
- b. a first code reception unit (local computer) adapted to receive a first personal identification code (identity of intended recipient) input by a user (sender) (C5 L65-67, C6 L1-14);
- c. a random number generation unit (by secure printer process) adapted to generate a random number (session key) (abstract, C6 L14-28);
- d. a random number encryption unit (by secure printer process) adapted to encrypt the generated random number (session key) by using the first personal identification code or a key (intended recipient's public key) based on the first personal identification code as an encryption key (abstract, C6 L35-40);
- e. a print data encryption unit (by secure printer process) adapted to encrypt print data (document) by using the random number (session key) as an encryption key (abstract, C6 L14-30); and
- f. a transmission unit (print server 130) adapted to transmit the encrypted random number (encrypted session key), the converted first personal identification code (intended recipient's

identity) and the encrypted print data (encrypted document) to said print control apparatus (secure printer 140) (abstract, C6 L48-52),

g. and said print control apparatus comprises:

h. a reception unit (secure printer 140) adapted to receive the encrypted random number (encrypted session key), the converted first personal identification code (intended recipient's identity) and the encrypted print data (encrypted document) from said information processing apparatus (abstract, C7 L21-38);

i. a second code reception unit (smart card reader 280) adapted to receive a second personal identification code (recipient's identity or PIN) input by the user (recipient) (abstract, C6 L58-67);

j. a judgment unit (document store 130) adapted to judge whether or not the first personal identification code converted by said first code conversion unit is the same (recipient is the intended recipient) as the second personal identification code converted by said second code conversion unit (abstract, C7 L8-20);

k. a random number decryption unit (smart card) adapted to, in a case where said judgment unit judges that the converted first and second personal identification codes are the same (recipient is the intended recipient), decrypt the encrypted random number (session key) by using the second personal identification code or a key (private key) based on the second personal identification code as a decryption key (abstract, C7 L30-38); and

l. a print data decryption unit (secure printer 140) adapted to, in the case where said judgment unit judges that the converted first and second personal identification codes are the same, decrypt the encrypted print data (document) by using the decrypted random number (session key) as a decryption key (abstract, C7 L42-49).

10. Chan does not disclose the following limitations:

m. A first code conversion unit... function;

n. A second code conversion unit... function.

11. Ishiguro discloses the following limitations:

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o. a first code conversion unit adapted to convert the received first personal identification code (ID concatenated with service key) by using a predetermined function (hash function) (abstract, figure 32, C6 L11-25);

p. a second code conversion unit adapted to convert the received second personal identification code (ID concatenated with service key) by using a predetermined function (hash function) (abstract, figure 32, C6 L11-25).

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute “identity of the intended recipient” for “personal identification code” because a personal identification code serves as identity of a recipient. Additionally, Chan teaches the recipient entering a personal identification number to verify himself (C6 L58-67).

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chan with Ishiguro because 1) a need exists to protect sensitive documents from malicious parties that could intercept or monitor the transfer of data between a local computer and network printer, or could read the sensitive document at the network printer (Chan C1 L50-67, C2 L1-5); and 2) a need exists to verify the destination apparatus to prevent unauthorized access (Ishiguro C1 L49-55, C2 L1-32). Applying a hash function to the personal identification code can help ensure secure communications and prevent unauthorized access.

Claims 2, 6

14. Chan, in view of Ishiguro, discloses all the limitations above. Furthermore, Ishiguro discloses the following limitations:

q. said code conversion unit converts the personal identification code (ID concatenated with service key) by using a one-way function (one-way hash function) (abstract, figure 32, C6 L11-25).

15. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chan with Ishiguro because 1) a need exists to protect sensitive documents from malicious parties that could intercept or monitor the transfer of data between a local computer and network printer,

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or could read the sensitive document at the network printer (Chan C1 L50-67, C2 L1-5); and 2) a need exists to verify the destination apparatus to prevent unauthorized access (Ishiguro C1 L49-55, C2 L1-32). Applying a one-way hash function to the personal identification code can help ensure secure communications and prevent unauthorized access.

Claims 3, 7

16. Chan, in view of Ishiguro, discloses all the limitations above. Furthermore, Ishiguro discloses the following limitations:

r. said code conversion unit generates a hash value (license key) of the personal identification code (ID concatenated with service key) (abstract, figure 32, C6 L11-25).

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chan with Ishiguro because 1) a need exists to protect sensitive documents from malicious parties that could intercept or monitor the transfer of data between a local computer and network printer, or could read the sensitive document at the network printer (Chan C1 L50-67, C2 L1-5); and 2) a need exists to verify the destination apparatus to prevent unauthorized access (Ishiguro C1 L49-55, C2 L1-32). Generating a hash value of the personal identification code can help ensure secure communications and prevent unauthorized access.

Claims 4, 12

18. Chan, in view of Ishiguro, discloses all the limitations above. Furthermore, Chan discloses the following limitations:

s. a transmission unit (print server 130) adapted to transmit the encrypted random number (encrypted session key), the converted personal identification code (identity of the intended recipient) and the encrypted print data (encrypted document) (abstract).

Claims 8, 10, 14

19. Chan, in view of Ishiguro, discloses all the limitations above. Furthermore, Chan discloses the following limitations:

- t. a print processing unit (secure printer 140) adapted to execute a print process (prints) of the decrypted print data (abstract).

20. **Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

21. Claims 1, 5, 9, 11, 13, 15-18 are not patentably distinct; thus a restriction is improper at this time. Because the inventions are not patentably distinct, the claims stand or fall together. If in response to this Office Action Applicant argues that the inventions are patentably distinct or amends the claims to make them so, then a restriction requirement may be required under 35 U.S.C. §121.

22. In light of Applicants' choice to pursue product claims, Applicants are reminded that functional recitation(s) using the word and/or phrases "for", "adapted to", or other functional language (e.g. see claims 1, 4-5, 8-10 which recite "adapted to") have been considered but are given little patentable weight because they fail to add any structural limitations and are thereby regarded as intended use language. To be especially clear, all limitations have been considered. However, a recitation of the intended use of the claimed product must result in a structural difference between the claimed product and the prior art in order to patentably distinguish the claimed product from the prior art. If the prior art structure is capable of performing the intended use, then it reads on the claimed limitation. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) ("The manner or method in which such a machine is to be utilized is not germane to the issue of patentability of the machine itself."); *In re Otto*, 136 USPQ 458, 459 (CCPA

1963). See also MPEP §§ 31.06 II (C.), 2114 and 2115. Unless expressly noted otherwise by the Examiner, the claim interpretation principles in the paragraph apply to all claims currently pending.

Conclusion

23. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to Chrystina Zelaskiewicz whose telephone number is 571.270.3940. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Fischer can be reached at 571.272.6779.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

/Chrystina Zelaskiewicz/
Examiner, Art Unit 3621
August 7, 2008

/ANDREW J. FISCHER/
Supervisory Patent Examiner, Art Unit 3621